

REMARKS/ARGUMENTS

The Applicants originally submitted Claims 1-28 in the application. The Applicants have amended Claims 1, 6, 8, 13, 15, 20, 22 and 27. No Claims have been canceled or added. Accordingly, Claims 1-28 are currently pending in the application.

I. Formal Matters and Objections

The Examiner has noted that the information disclosure statement (IDS) filed on December 4, 2000, fails to comply with 37 C.F.R. §1.98(a)(2) since a legible copy of the cited portion of the reference was not provided. (Examiner's Action, page 2). According to a receipt from the USPTO, however, the USPTO did receive a copy of the reference on December 4, 2000. Since the Applicants timely filed the first copy of the IDS, no fee should be required with this resubmission. Nonetheless, to further expedite prosecution and insure consideration of the reference, the Applicants hereby submit an IDS with another copy of the cited reference.

Additionally, the Examiner has noted that certain materials the Applicants referred to in the specification are not properly before the Examiner as references. (Examiner's Action, page 2). The Applicants referred to these materials merely for purposes of providing background information. The Applicants do not regard them as "references" since they are not material to the patentability of the Claims. Accordingly, the Applicants deliberately did not list the references in the IDS.

The Examiner has also objected to the drawings for not showing a connection between blocks 330 and 345. (Examiner's Action, page 2). In response, the Applicants have submitted a replacement drawing showing a proper connection of elements 330 and 345. Accordingly, the Applicants respectfully request the Examiner to withdraw this objection to the drawings.

The Examiner has objected to the specification for an informality. In response, the Applicants have amended the specification to include the appropriate application numbers of the referenced applications. Accordingly, the Applicants respectfully request the Examiner to remove the objection to the specification.

II. Rejection of Claims 1-14 under 35 U.S.C. §103

The Examiner has rejected Claims 1-14 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,434,233 to Bjarnason, *et al.* (Bjarnason) in view of U.S. Patent No. 5,809,033 to Turner, *et al.* (Turner). The Applicants respectfully disagree.

Bjarnason is directed to the cancellation of periodic interference signals with an adaptive tone predictor. (Column 1, lines 9-11). Bjarnason, however, does not teach or suggest a noise prediction equalizer adapted to be concatenated with a decision feedback equalizer during showtime of a bit pump to form at least a portion of a precoder associated with a transmit path as recited in Claims 1 and 8. On the contrary, as mentioned by the Examiner, Bjarnason does not even teach forming a precoder associated with a transmit path. (Examiner's Action, page 4). Instead of being associated with a transmit path, the decision feedback equalizer (DFE) (306, 406) and the noise predictor element (318, 418) in Bjarnason are in a receiver path. (Column 5, lines 13-62 and Column 6, lines 36-52).

In an effort to cure the deficiencies of Bjarnason, the Examiner has cited Turner to teach a bit pump with a precoder associated with a transmit path. (Examiner's Action, pages 3-4). Turner is directed to an improved encoding scheme for extending a normal range of digital communications transported over a two-wire telephone wireline channel. (Column 1, lines 15-19). However, similar

to Bjarnason, Turner does not teach or suggest a portion of a precoder formed from concatenating a noise prediction equalizer and a decision feedback equalizer during showtime of a bit pump as recited in Claims 1 and 8. Instead, Turner teaches a precoder with a dedicated multitap filter (29 of Figure 1).

Thus, the cited combination of Bjarnason and Turner fails to teach or suggest all features of the invention recited in independent Claims 1 and 8 and Claims dependent thereon. Hence, the cited combination of Bjarnason and Turner does not present a *prima facie* case of obviousness of Claims 1-14. Accordingly, the Applicants respectfully request the Examiner to withdraw the 35 U.S.C. §103(a) rejection and issue allowance for Claims 1-14.

III. Rejection of Claims 15-28 under 35 U.S.C. §103

The Examiner has rejected Claims 15-28 under 35 U.S.C. §103(a) as being unpatentable over Turner in view of Bjarnason and U.S. Patent No. 5,512,898 to Norsworthy, *et al.* (Norsworthy). The Applicants respectfully disagree.

As discussed above, the combination of Turner and Bjarnason do not teach or suggest a noise prediction equalizer adapted to be concatenated with a decision feedback equalizer during showtime of a bit pump to form at least a portion of a precoder associated with a transmit path. Since independent Claims 15 and 22 also include this limitation, the cited combination of Turner and Bjarnason also does not teach or suggest each and every element of independent Claim 15 or independent Claim 22. Rather than being cited to cure this deficiency, Norsworthy has only been cited to teach a decimator coupled to an analog-to-digital converter. (Examiner's Action, page 7).

Thus, the Examiner's combination of Turner, Bjarnason and Norsworthy does not teach or suggest each and every element of independent Claim 15 or 22 and Claims dependent thereon.

Accordingly, the Examiner's combination of Turner, Bjarnason and Norsworthy does not present a *prima facie* case of obviousness of Claims 15-28. Thus, the Applicants respectfully request the Examiner to withdraw the 35 U.S.C. §103(a) rejection and issue allowance for Claims 15-28.

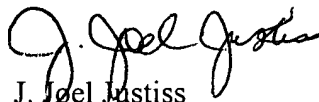
IV. Conclusion

In view of the foregoing amendment and remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-28.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

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